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Determinants of long acting reversible contraceptive method utilization among married women in Dessie town, North east Ethiopia

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List of Acronyms

ARSHB Amhara regional state health Bureau

CSA Central Statistics Agency

EDHS Ethiopian Demographic and Health Survey

FMOH Federal Minister of Health

FP Family Planning

HC Health Center

HF Health Facility

IUC Intrauterine Contraceptive

IUCD Intrauterine Contraceptive Devices

LAPMs Long Acting Permanent Methods

LARCMs Long-Acting Reversible Contraceptive Methods

IRB Institutional Review Board

UK United Kingdom

USAID United state Agency International Development

UNICEF United Nation's Children Fund

US United States

HEWs Health Extension Workers

WHO World Health Organization

Abstract

Introduction: Long-acting reversible contraceptive methods are by far the most effective (99% or greater) methods of contraception and are very safe and convenient. Globally, unintended pregnancies account for about 40% of maternal deaths and contribute to population growth. The most popular modern contraceptive methods in Ethiopia are injectables (14%).Utilization of implants and IUD are 3 % and 2% respectively, which is very low. Long-acting reversible contraceptive methods can substantially reduce the high levels of maternal mortality and morbidity in developing countries. Previous studies conducted in Dessie town were declined to consider it.

Objective: The objective of this study was to assess determinant factors for utilization of long acting reversible contraceptive methods among married women in Dessie town.

Methods: Unmatched community based case -control study was conducted from April 20-30, 2012. Simple random sampling technique was used to select 465 married women for the study. Female data collectors were recruited and a structured pretested questionnaire using interview technique was used for data collection. Data entry and clearing was done using EPI- INFO 3.5.1 and SPSS version 16 statistical packages for analysis.

Results: A total of 465 married women with 1:2 cases to control ratio were included in the analysis with 100% response rate. The mean age was 31 years (±5.5 year and 30 years (±5.7 years) for users of long acting and short acting contraceptives respectively. Age of women (AOR: 95% CI)=4.3(1.88,9.98),having discussion with husband (AOR: 95% CI)=15.5(7.63,31.81), and women education (AOR: 95% CI) =3.1(1.22,7.8) were identified as determinants of long acting reversible contraceptive method use among married women.

Conclusion: Among several factors that determine the utilization of long acting reversible contraceptive methods, age of women, women's education and husband-wife discussion were found to be determinants of long acting reversible contraceptive method use.

1. Introduction

1.1. Statement of the problem

Long acting reversible contraceptive methods (Implants and intrauterine devices) are convenient for users and offer long-term effectiveness and reversibility for women and couples who want to delay or space their pregnancies. LARCMs unlike short acting contraceptive methods require almost no attention on the part of the user after they are initiated and can be the most cost-effective option for users over time than short acting contraceptive methods in which their cumulative costs due to return visits and resupply can be surprisingly high. Use of an IUD or implant may lower a woman's risk of endometrial cancer, an implant also decreases a woman's risk of anemia and protect against ovarian cancer (1)

Four contraceptive methods are categorized as long-acting or permanent (LA/P): intrauterine devices (IUDs), implants, female sterilization, and vasectomy. IUDs and implants are long-acting temporary methods; when removed, return to fertility is prompt. Copper-containing IUDs, the ones generally available in African Ministry of Health (MOH) family planning programs, are effective for at least 12 years, although they are labeled for 10 years. Implants, depending on the type, last for up to three to five years. Female sterilization, or tubal ligation, and vasectomy are permanent methods(2)

In Sub–Saharan Africa, the uptake of family planning has been disappointing in particular. The level of contraceptive use has been estimated at 5 – 30%, even after developing population policies, the contraception prevalence rates are still low. The unmet need has increased over the years. Low use of family planning has been attributed to inadequate access to services, value attached to children, unfavorable environment including strong opposition to family planning and lack of coherence between partners(3)

Women in sub-Saharan Africa face a one in 16 (6.25%) lifetime risk of maternal mortality and an even greater risk of maternal morbidity. By contrast, women in developed countries

face a lifetime risk of maternal death of one in 2800 (.035%). Maternal mortality is not common in the developed world (e.g., two deaths per 100,000 live births in Sweden), whereas in the developing world maternal morbidity and mortality is much more common(4) Globally, unintended pregnancies account for about 40% of maternal deaths and contribute to population growth, which is a worldwide economic and environmental problem. Effective family planning programs can overcome these problems (5)

Annual population growth rate of Ethiopia is 2.6 percent and the number of women of reproductive age (15–49) will increase by 10% and 8% from 2007 to 2015 and from 2015 to 2025. A rapid population growth is a burden on the resources of many developing Countries (6)

The most popular contraceptive methods are injectables (14%).Utilization of implants and IUD are 3 % and 2% respectively, which is very low (7).Creating wider access to long-acting and permanent methods of contraception, which are the most effective contraceptives, can substantially reduce the high levels of maternal mortality and morbidity in developing countries, as well as unwanted pregnancies and abortion

So, this study is intended to assess determinants of long acting reversible contraceptive methods. The finding obtained from this study will have some contribution for the achievement of overall developmental goal and the quality of life of the people and women's.

1.2. Literature review

Long-acting reversible contraceptive methods, which include intrauterine devices and contraceptive implants, are the most effective contraceptive methods. These methods are safe and acceptable and have lower failure rates than other methods. Current use of LARC methods is low in the United States; only 5.5% of contraceptive users rely on the IUD. But researchers with the Contraceptive choice project found that those who chose LARC methods had the highest levels of satisfaction and highest continuation rates compared to those using short acting methods (8)

China has been established and maintained relatively stable mode of contraception since the 1980s. This is characterized by long-term contraceptive use which is still dominant in China. Intrauterine device usage increased (39.83% in 1980 to 48.15% in 2010) (9)

In a U.S. Study, Grady et al. 2008, found that rapid population growth, high rates of unemployment, elevated levels of religious affiliation, higher socioeconomic status and ready access to family planning services were all associated with increased uptake of contraceptives(8)

Long-acting reversible contraception (intrauterine devices and sub-dermal implants) use among U.S. women using contraception increased from 2.4% in 2002 to 5.6% in 2006-2008. The largest increases in long-acting reversible contraception use during this time occurred among the youngest and oldest age groups(10)

A case-controlled retrospective cost-effectiveness study was done in UK on the cost-effectiveness of implanon and oral contraception on a cohort of 493 implanon users and 493 oral contraceptive users. Cost-effectiveness was calculated based on provision of method and pregnancy costs of each cohort. The findings show that implanon provision is more cost-effective than oral contraception at all time points. As a result, long-acting reversible contraception is perceived to be expensive. It is reassuring to contraception providers that implanon is highly cost-effective when compared to oral contraception with typical use(11)

Significant Attributes of Long-Acting and Permanent Methods

Long-acting and permanent methods are by far the most effective (99 percent or greater) methods of contraception available and are very safe and convenient. They are all clinical methods and thus must be provided by trained doctors, nurses, and/or midwives in health facilities. Only one action by client and provider results in years of protection against unintended pregnancy. The desirability of these methods is due to their long life span, unlike pills and condoms, and thus have higher continuation and effectiveness rates(2)

In Kenya, more than 85 percent of women who choose the IUD report being satisfied with their methods In both Nigeria and Zimbabwe, at least 96 percent of women using implants have said they are satisfied or very satisfied with their choice(9)

Determinants Of Long Acting Reversible Contraceptive Use

Socio-demographic determinants

Contraceptive use and attitudes, age, women's level of education, occupation of women and previous familiarity with contraceptive methods were the most significant factors influencing contraceptive use. The reason for the high rate of not using any contraception methods by women with low educational levels, women's lack of economic independence; social value judgments such as being dependent on their husbands for decision-making (12)

Access to information and services factors

In Sub-Saharan Africa and Asia, 22–25% of married women have reason for not using contraceptive methods due to lack of access to information and services(6) .Even when trained providers are available, Providers may not provide LARCMs to their clients because of unnecessary or outdated restrictions, such as age or the number of children a woman has. They may not be familiar with the latest evidence and so may unintentionally deny a client an LARCM for inappropriate medical reasons. Or, they may not offer comprehensive information about all methods during counseling, which limits the ability of a client to make an informed contraceptive choice(13)

Supply source and Service-level factors

In Egypt, contraceptive use is associated with the supply source of the method. The health care system posed obstacles to IUD uptake like difficulty scheduling appointments, limited clinic hours, referral requirements, long wait times, clinic closings, and lack of provider training(14). Policy-makers and program managers are sometimes reluctant to make LARCMs part of the mix of contraceptive methods. As a result, the lack of availability of commodities and supplies, opportunities to train providers is a persistent barrier to the use of LARCMs in some areas of sub-Saharan Africa. Even stock-outs of the necessary commodities or equipment can be problematic(13)

Religion and Cultural Norms

In Nigeria, Norplant services have been maintained, but no attempt has been made to report the response of this largely Hausa and Muslim community where contraceptive use is generally low(15). In Jordan, nearly 40% of married men do not believe in practicing contraception and more than half believe that family size should be left up to God(16). Around fertility and marriage may prevent some from using contraception. Sexuality is not openly discussed because of taboos. Additionally, son preference and the need for children in the workforce are barriers to contraceptive use even within the context of marriage(17)

Myths and misconceptions, Knowledge and attitude as a determinant

IUD is the most safe, highly effective, long lasting method of contraception, its utilization in South Africa is really low despite it being administered free of charge. in South Africa study on knowledge, attitudes and practices of IUD users and service providers were assessed the providers had inadequate knowledge of IUDs and many providers thought that IUDs caused PIDs. In addition, few women knew actually about the IUDs, significantly none of the participants knew that the IUD could be used for more than 5 years(18). A study was conducted on 400 participants who sought for family planning services at one government in Nairobi Kenya. A third of the population had felt that the prolonged use of hormonal contraceptives would lead to future infertility (19)

Husband-wife discussion, living children as determinant of contraceptive use

In 2008, a cross-sectional survey were conducted on 408 women aged 15-49 in Hohoe District, Volta Region, Ghana. Nearly 59% were married and 25.5% were using modern methods. Nearly 75% of contraceptive users had at least one living child. More than 82% of women had discussed family planning with someone, but only 48.3% had discussed contraception with their partners. 83% of women were using injectables. More than 44% of contraceptive users wished to delay childbirth, while 24% wished to space births and 16% wished to limit childbirth(12). In Yemen, about 42% of women said they had not talked to their husbands about family planning in the year preceding the survey while 26% had discussed it once or twice and 32% had discussed it more often(16)

A cross sectional community based survey was conducted among married women in Mekelle town, in 2011; the majority of the married women for not using LAPMs were using another method of contraception 360 (93.3%). Mothers who had two or more pregnancies were 3 times more likely to use LAPM as compared with those who had one pregnancy. More than half (53.6%) of married women had negative attitude towards practicing of LAMPs .Few of married women use implants and IUCD (20)

In 2009,in Butajira district a study revealed that married women who attained primary and secondary plus level of education have about 2 times more likely to use contraception (21)

1.3. Justification of the study

Assessing the determinants of long acting reversible contraceptive methods are important where most of previous studies conducted in Dessie were declined to consider them. Because, the number of women of 15–49 age group will increase by 10% between 2007 and 2015 and contraceptive needs are expected to rise as increasing numbers of women want to have smaller families. There is low utilization of long acting reversible contraceptive methods nationally and locally. Therefore, this particular study was carried out to assess the determinants for utilization of long acting contraceptive methods in married women in Dessie town and come up with strong recommendation that can be used by all interested organization who are working on the area of family planning at large specially long acting contraceptive methods.

2. Objective

To assess determinants of long acting reversible contraceptive methods use among married women in Dessie Town, North east Ethiopia, February to June, 2012

3. Methodology

3.1 Study design

Unmatched community based case control study was conducted. Cases for the study were married women who have received long acting reversible contraceptive methods prior to data collection and who were residing in Dessie Town. Those married women who have received short acting contraceptive methods were controls for the study.

3.2 Study area and period

The study was conducted from April 20-30, 2012, in North east Ethiopia, south wollo zone, Dessie Town. Dessie town is located on the Addis Ababa-Mekele road in South Wollo administrative zone of the Amhara region. Ten urban kebeles are found in the town. The total population was estimated to be 148158 with regional rate of natural increase of 1.8%. Among the total population 23.66 % (35054) are women of reproductive age. In the town there are one referral hospital , one regional laboratory, three Health centers under the government and three private hospitals ,7 higher clinics ,20 drug stores ,5 whole sale drug and other pharmaceutical supply owned by private sectors, Potential health service coverage of the woreda is about 100% and the family planning service coverage is about 37%(22)

3.3 Source population

All women using modern contraceptive methods residing in Dessie Town.

3.4. Study Population

All married women using long acting reversible and short acting contraceptive methods, residing in selected kebeles of Dessie Town.

3.5. Inclusion and Exclusion criteria

3.5.1. Inclusion criteria

Those married women in the age of child bearing and using long and short acting contraceptive methods, residing in the town.

3.5.2. Exclusion criteria

Those married women who are using permanent methods of contraceptive methods, who were mentally ill, unable to hear.

3.6. Variables of the study

Outcome variables

Utilization of long acting reversible contraceptive methods

Explanatory variables

- Demographic factors:- (Age, ethnicity, marital duration, education)
- Socio-Cultural-Economic factors **:-**Religion, occupation, problem with previous contraceptives, decision to use and other factors like attitude and knowledge about LARC Ms**,** availability of contraceptive methods, fear of side effect**,** number of living children and desired number of children, awareness about FP methods, myths and misconceptions, clinical procedure, information given and long waiting time.

3.7. Operational Definitions

Long-acting reversible contraceptives:- are contraceptive methods in which their lengths of action ranges from 3-10 years (intrauterine devices and implants) (23)

Short-acting contraceptives: are contraceptive methods in which their lengths of action ranges from 1 to 3 months (Injectables and pills)(23)

Long waiting time:-Stayed more than one hour to get service

Knowledge of modern family planning method: - If a women recalled at least one modern contraception and one source of contraceptive (7)

Cases: - Those married women who received long term reversible contraceptive methods prior to data collection and who have lived in Dessie Town

Controls: - Those married women who received short term contraceptive methods prior to data collection and who have lived in Dessie Town

3.8. Sample size determination

Sample size was determined using EPI INFO version 3.5.1.stat calc software by considering one variable assumed to bring difference in two groups, based on the household survey finding from Mekelle Town *knowledge* was the variable used to calculate the sample size with estimated exposure among cases 31.1%(20) ,OR 2 and power 90% by considering non response rate of 5%, and 95% confidence interval with 1:2 Cases to controls ratio.

Where, n_1= Sample size for cases, n_2= Sample size for controls , r = n2/n1=2

p_1 = proportion of high knowledge among cases for utilization of LARCMs is 31.1%, OR 2 ,calculated sample size for cases and controls were 147 and 294 respectively, adding 5 % for non response, 155 cases, 310 controls and the total sample size was 465.

3.9. Sampling procedure

Dessie town has a total of 10 urban kebeles. Three urban kebeles were selected randomly. The numbers of study subjects to be included in each kebele were determined in proportion with the total number of short and long acting contraceptive users found in urban health extension workers baseline survey in each kebele. Then, a simple random sampling method was employed to select the study subjects.

3.10. Data collection procedures

Interviewer using structured questionnaire was employed to collect data. The questionnaire was first prepared in English and then it was translated in to Amharic as the study subjects speak Amharic. Female data collectors that have completed high school education were recruited and trained for two days on data collection tools and procedures.

3.11. Data Quality Control

Questionnaire was pretested at kebeles which are not target for the actual study prior to the actual study. Three supervisors and the principal investigator supervised the data collection process. The questionnaires were collected everyday and checked for inconsistencies and omissions. Supervisors interviewed 5 % of the households

3.12. Data processing and analysis

After data collection was completed, data entry and clearing was done using EPI- INFO 3.5.1 and it was then transported to SPSS version 16 statistical packages for analysis. Frequencies and percentages of the responses were calculated, followed by cross-tabulation to compare frequencies. Associations between dependent and independent variables were assessed by using Odds Ratio, 95% Confidence Intervals and P-values. Multiple logistic- regression were used to adjust for possible confounding effect and p-value less than 5% was considered as significant in the multivariate analysis

4. Ethical Considerations

Ethical clearance was obtained from IRB of the Institute of Public Health University of Gondar. Official letters were submitted to ARSHB and Dessie Town administrative health office .The importance and purposes of the study were explained & informed verbal consent was ensured from each participant. Confidentiality was maintained during at all levels of the study. Participants who were unwilling to participate in the study and those who wish to quit their participation at any stage were informed to do so without any restriction.

5. Results

A total of 465 married women (155 long acting and 310 short acting contraceptive users) were selected with 100% response rate. Majority of women (92.5%) were Amhara by ethnicity and 264(56.8%) of them were Orthodox Christian religion followers. 35% and 21.6% of the respondents were college and above in the long and short acting contraceptive users respectively .Table1

Table 1: Socio-demographic characteristics of long and short acting contraceptive users, Dessie town, February to June, 2012

Variables		Cases N (%)	Controls N (%)	Total N (%)
Age	≤ 24	17(11.0)	57(18.4)	74(15.9)
	25-29	38(24.5)	109(35.2)	147(31.6)
	30-34	50(32.3)	75(24.2)	125(26.9)
	35-39	39(25.2)	49(15.8)	88(18.9)
	≥ 40	11(7.1)	20(6.5)	31(6.7)
Ethnicity	Amhara	145(93.5)	285(91.9)	430(92.5)
	Oromo	2(1.3)	7(2.3)	9(1.9)
	Tigre	8(5.2)	18(5.8)	26(5.6)
Religion	Orthodox	100(64.5)	164(52.9)	264(56.8)
	Protestant	10(6.5)	27(8.7)	37(8.0)
	Muslim	45(29)	119(38.4)	164(35.3)
Occupation	House wife	65(41.9)	139(44.8)	204(43.9)
	Merchant	19(12.3)	60(19.4)	79(17.0)
	Daily laborer	18(11.65)	30(9.7)	48(10.3)
	GOV/NGO Employed	43(27.7)	63(20.3)	106(22.8)
	Student	10(6.5)	18(5.8)	28(6.0)

Woman education	No formal education	19(12.3)	80(25.8)	99(21.3)
	Primary	21(13.5)	72(23.2)	93(20.0)
	Secondary	61(39.4)	91(29.4)	152(32.7)
	College and above	54934.8)	67(21.6)	121(26.0)
Husband education	No formal education	10(6.5)	27(8.7)	37(8.0)
	Primary	7(4.5)	63(20.3)	70(15.1)
	Secondary	52(33.5)	99(31.9)	151(32.5)
	College and above	86(55.5)	121(39)	207(44.5)

The mean age was 31 years (±5.5 year) and 30 years (±5.7 years) for the cases and controls respectively. Eleven percent of married women who have five and more alive children were using long acting reversible contraceptive methods, 47% of the cases also have 1-2 alive children. Almost half of women who were using short acting contraceptive have had 1-2 alive children and 3.2% of controls have had 5 or more alive children.

5.1. Reproductive characteristics of long acting and short acting contraceptive users

Eleven percent of married women who had 5 and above children was found in cases, while in controls comprised (3.2%). Twenty percent of married women who were utilizing long acting contraceptives have no desire to have children and 9.7 % of married women who have used short acting contraceptive have desired to have 3-4 children in their reproductive life. In long acting contraceptives users the average number of children a women desire to have was found to be 3.4 with SD =1.7 and women in short acting contraceptive users was 3.5 with SD=1.4. Women who had no birth and have five or more children among short acting contraceptive method users were 17(11%) and 10 (3.2%)respectively. Table 2

Table2. Reproductive characteristics of long acting and short acting contraceptive users, in Dessie town, February to June, 2012

Variables		Cases N (%)	Controls N (%)	Total N (%)
Age at 1st marriage	<18	14(9)	33(10.6)	47(10)
	≥18	141(91)	277(89)	418(90)
Age at 1st birth	<20	17(11)	45(14.5)	62(13)
	20-29	125(81)	223(72)	348(75)
	30-39	4(2.6)	8(2.6)	12(3)
	No birth at all	9(5.8)	34(11)	43(9)
No. of alive children	No children	9(5.8)	34(11)	43(9)
	1-2 children	73(47.1)	169(55)	242(52)
	3-4 children	56(36.1)	97(31.3)	153(33)
	5 and above children	17(11)	10(3.2)	27(6)
No. of children women wish to have	No child	31(13.1)	30(9.7)	61(13)
	1-2 children	13(10.5)	36(11.6)	49(11)
	3-4 children	46(29.7)	119(38.4)	165(35)
	>=5	16(10.3)	35(11.3)	51(11)
	Undecided	26(16.8)	51(16.5)	77(17)
	God allows	23(14.8)	39(12.6)	62(13)

5.2. Family planning conditions of long and short acting contraceptive users

Government health facilities were found to be the major sources of modern contraceptive methods they are using for both study groups (92%) and followed by private pharmacy 128(27.5%), private clinics 119(25.6%) and NGOs 47(10.1%). Three hundred fifty-three (75.9%) of respondents received their first choice of contraceptive, of which 118(76.1%) from long acting contraceptive users and 259 (83%) from short acting contraceptive users were choice by themselves. Four hundred twenty-six (91.6%) of the respondents were satisfied.

Married women in the study were asked why they were using contraceptive ,the most commonly mentioned reason for using contraceptive among long acting contraceptive users was137(88.4%) for child spacing and18(11.6%) for limiting ,while among short acting contraceptive users 306(98.7%) was for child spacing and 4(1.3%) was for limiting.

Of the total study subjects 281(60.4%), 317(68%), 40(8.6%) and 17(3.7) have had previous history of using pills; inject able, implants and IUCD respectively. On the other hand pills, injectables, implants, and IUCD were mentioned as modern contraceptive methods by majority of respondents while condom by only 344(7.4%).

The predominant short acting contraceptive method used by (74.5%) of married women was inject able and in long acting contraceptive implants were also used by 105(67%) married women

The study participants were asked if they have had experience of discussion with their husband about contraceptive use, 145 (93.5%) of cases and 156 (50.3%) of controls have had experience of discussion with their husband on contraceptive use.

Table 3. Family planning conditions of long and short acting contraceptive users in Dessie town, February to June, 2012

VARIABLES		CASES N (%)	CONTROL N (%)	Total N (%)
Type of modern contraceptive used	Pills	0(0)	79(25.5)	79(17)
	Inject able	0(0)	231(74.5)	231(50)
	Implants	105(67.7)	0(0)	105(23)
	IUCD	50(32.3)	0(0)	50(11)
Source of contraceptive	Government health facilities	134(86.5)	253(81.6)	387(83)
	private HFs	7(4.5)	22(7.1)	29(6)
	Pharmacy	1(.6)	17(5.5)	18(4)
	NGO	13(8.4)	18(5.8)	31(7)
Received 1st choice	Yes	102(65.8)	251(81)	353(76)
	No	53(34.2)	59(19)	112(24)
Reason of contraceptive uses	For spacing	137(88.4)	306(99)	443(95)
	To limit	18(11.6)	4(1.3)	22(5)
Husband-wife discussion on contraceptive	Yes	145(93.5)	156(50.3)	164(35)
	No	10(6.5)	154(50)	301(65)

5.3. Cultural, religious, myths and misconception on contraceptive use

More than 97% in both groups were disagreed on the impact of culture on contraceptive use. About 15(10%) and 41(13%) of married women in cases and controls perceived that the use of contraceptive will cause infertility and other health problem in females and 21(4.5%) of the total married women in the study were also believed that no problem if a person have too many children because it is gift from God.

In the result, it was found that 86 (27.7%) and 47(30.3%) of respondents were agreed that religion can affect family planning use in controls and cases respectively.

5.4. Determinants of long acting reversible contraceptive method use

Factors determine for long acting contraceptive method utilization like Age of women , age at first birth, number of alive children ,number of children women wish to have, religion, women education, husband education and husband-wife discussion were tested at p-value <0.2 for their association by using binary logistic regression analysis. Only age of married women, women education and discussion with husband were found to have statistically significant association to the long acting contraceptive use.

Women's at age 35-39 years were about four times to use long acting reversible contraceptive methods than women's at age <=24 years [AOR (95%CI) = 4.3(1.88,9.98)].

Women attended college and university were about three times to use long acting contraceptives than women with no education [AOR (95%CI) = 3.1(1.22, 7.85)].

Husband wife discussion was found to be statistically significant, married women who had experience of discussion with their husbands about contraceptive were 15 times more likely to use long acting contraception [AOR (95%CI) =15.6(7.63, 31.81)] Table 4.

Table 4:- Multivariate analysis on determinants of long acting reversible contraceptive method use among married women in Dessie town, February to June, 2012

Variables	Cases N=155 N (%)	Controls N=310 N (%)	COR (95%)	AOR (95%)
Age of respondent				
≤24	17(11.0)	57(18.4)	1	1
25-29	38(24.5)	109(35.2)	1.169(0.61 ,2.30)	1.2(0.57,2.54)
30-34	50(32.3)	75(24.2)	2.235(1.12,4.30)**	2.4(1.12,4.98)***
35-39	39(25.2)	49(15.8)	2.669(1.34,5.30)***	4.3(1.88,9.98)**
≥40	11(7.1)	20(6.5)	1.844(0.74,4.60)*	5.1(1.57,16.76)
Religion				
Orthodox	100(64.5)	164(52.9)	1	1
Protestant	10(6.5)	27(8.7)	0.607(0.28 ,1.31)	0.472(0.20,1.11)
Muslim	45(29)	119(38.4)	0.620(0.41,0.94)**	0.607(0.36,1.02)
Woman education				
No education	19(12.3)	80(25.8)	1	1
Primary	21(13.5)	72(23.2)	1.228(0.61,2.47)	0.97(0.411,2.31)
Secondary	61(39.4)	91(29.4)	2.822(1.56 5.12)***	3(1.28,7.13)**
College and above	54934.8)	67(21.6)	3.394(1.83,6.28)***	3(1.22,7.80)**
Husband education				
No education	10(6.5)	27(8.7)	1	1
Primary	7(4.5)	63(20.3)	0.300(0.10,0.87)**	0.21(0.07,0.73)
Secondary	52(33.5)	99(31.9)	1.418(0.64 ,3.15)	0.529(0.19,1.49)
College and above	86(55.5)	121(39)	1.919(0.88 ,4.17)	0.597(0.21,1.73)

Table 4 Continue:-

Variables	Cases N=155 N (%)	Controls N=310 N (%)	COR(95%CI)	AOR(95%CI)
No. of alive children				
No children	9(5.8)	34(11)	1	1
1-2	73(47.1)	169(55)	1.63(0.75 , 3.58)	
3-4	56(36.1)	97(31.3)	2.18(0.98 ,4.88)*	0.89(0.42,1.95)
5and above	17(11)	10(3.2)	6.42(2.2,18.70)***	0.901(.401,2.025
No. of chlid. wish to have				
No child	31(13.1)	30(9.7)	1	1
1-2	13(10.5)	36(11.6)	0.35(0.16, 0.78)**	0.49 (0.17,1.45)
3-4	46(29.7)	119(38.4)	0.37(0.20,0.68)***	0.34 (0.12,0.76)
≥5	16(10.3)	35(11.3)	0.44(0.20 ,0.96)**	0.35 (0.13,0.92)
Not decide	26(16.8)	51(16.5)	0.49(0.25 ,0.98)**	0.55 (0.23,1.33)
God allows	23(14.8)	39(12.6)	0.57(0.28 , 1.17)*	0.52 (0.21,1.30)
Husband-wife discussion on contraceptive				
No	10(6.5)	154(49)	1	1
Yes	145(94)	156(50)	14.3(7.26,28.1)***	15.6 (7.65,31.81)***

***p-value, 0.2, **p-value<0.05, *** p-value <0.001**

6. DISCUSSION

It is generally recognized that utilization of long acting reversible contraceptive methods was depend on individual factors and the functioning of the entire health system. After controlling other confounding factors, age of women, women's education and husband-wife discussion about contraceptive was appeared to be the most important predictors of the utilization of LARCMs.

As the age of women increases the likelihood of utilizing long acting reversible contraceptive methods also increase. Similarly study conducted in east Hararge Oromia zone revealed that age of mothers was found to be associated with the family planning method used. Those who were in the age group fifteen to twenty four and twenty five to thirty four were more likely to use short term methods compared to mothers who were in the age group thirty five and above(24)

The result in this study also agreed with Indonesia in 2007(25). As age increases, the propensity to use long acting methods also increases, even though contraceptive choice for younger and older women may be influenced by several factors, the possible reason for this may be the intention that a women to limit the number of children and fertility declines for women in midlife, so they prefer to use LARCMs than short acting contraceptive.. The study finding is also agreed with study in US America(10).

The result of this study showed that there was strong relationship between women's age and use of long acting reversible contraception methods. This finding may help family planning programmers and health providers to reconsider when they offer counseling when older women visit the health facility to choose contraceptive methods.

Women attended college and university were about three times more likely to use long acting reversible contraceptives than women with no education. This finding is lined up with the previous studies done in Indonesia and in Oman (25).

In this study, a higher level of education was found to be a significant predictor of long acting reversible contraceptive utilization. This finding is agreed with studies conducted across the developing world showed that the better educated a women is, the more likely she is to use contraception. Similarly in Ethiopia, Beekle and McCabe (2006) and Korra (2002) found strong associations between women's education and contraceptive use (26). Illiterate women had a risk of not using any contraceptive methods that was many times higher than literate women (27)

The study conducted in east Hararge oromia zone revealed that educational status of mothers was also found to be significantly associated with family planning method used. Mothers who were illiterate were less likely to use short acting methods than long acting methods compared to mothers who were literate(24). This discrepancy may be the result of culture and social value that the individual practice in the place where they live

The reason for the high rate of not using LARCMs by women with low educational levels in this study may have been a result of the women's lack of economic independence; social value judgments, such as being dependent on their husbands for decision-making;

There are a number of explanations that speculate as to why education is a key determinant of LACRMs use. For example education is likely to enhance female autonomy so that women can develop greater confidence, capabilities to make decision regarding their own health and demand higher quality of life. If women have exposure to education, they will tend to adopt modern values and have the opportunity for better access to gain adequate information about contraceptives. Moreover, educated women are more likely to be aware of difficulties during pregnancy. The more educated the women, the better informed they are about contraceptive and better able to accept to use LARCMs rather than short acting.

Still women's education has an influence on the utilization of long acting reversible contraceptive, even though the Ethiopian government sees the expansion of women's education as instrumental to increase the contraceptive prevalence rate from 15% in 2005 to 60% by 2015. From the family planning perspective, expansion of women's education has to be strengthen and still demanding.

Another predictor that has also shown as an important influence on LARCMs utilization was husband wife discussion. Those women having discussion with their husbands on contraceptive were more likely to use LARCMs than women who did not have discussion with their husbands on contraceptive. It is reasonable to expect that if there is no discussion between husband and wife, it has negative influences on using LARCMs.

This result is supported by studies done in Sub-Saharan Africa, including Ethiopia, have indicated that women who discussed contraceptive with their spouses were more likely to use contraception ,also report that educated and literate women in Ethiopia were more likely to discuss about family size and contraceptive use(26)

Women's roles in contraceptive use are well known as they are the primary career of the child during and after pregnancy. However, decisions about family planning are sometimes not discussed or made without sufficient communication between husbands and wives. Efforts to improve couples' communication can help lead to decisions about contraceptive use that reflect the needs of both women and men. Husbands will need relevant information to participate responsibly in making decisions on contraceptive use. The study limitations was it did not include permanent methods users.

7. Conclusion

Among several factors that affect utilization of long acting reversible contraceptive methods, age of women, women's education and husband-wife discussion were found to be determinants of long acting reversible contraceptive method use.

8. Recommendations

The findings have implications for family planning programs to seriously examine ways to increase contraceptive use for those specifically on LARCMs:-

- ✓ FMOH needs to intensify promotion of family planning with particular focus on long acting reversible contraceptive methods.

- ✓ Continuous health education on LAPMs, increasing availability of LAPMs services in public and private institutions and information education communication should focus on addressing the needs of long acting reversible contraceptive methods.

- ✓ Working in collaboration with non-governmental organizations and local community organizations are important.

- ✓ Further study should be conducted focusing on the service providers, male partners, service delivering institutions and to identify factors influencing the utilization of LARCMs.

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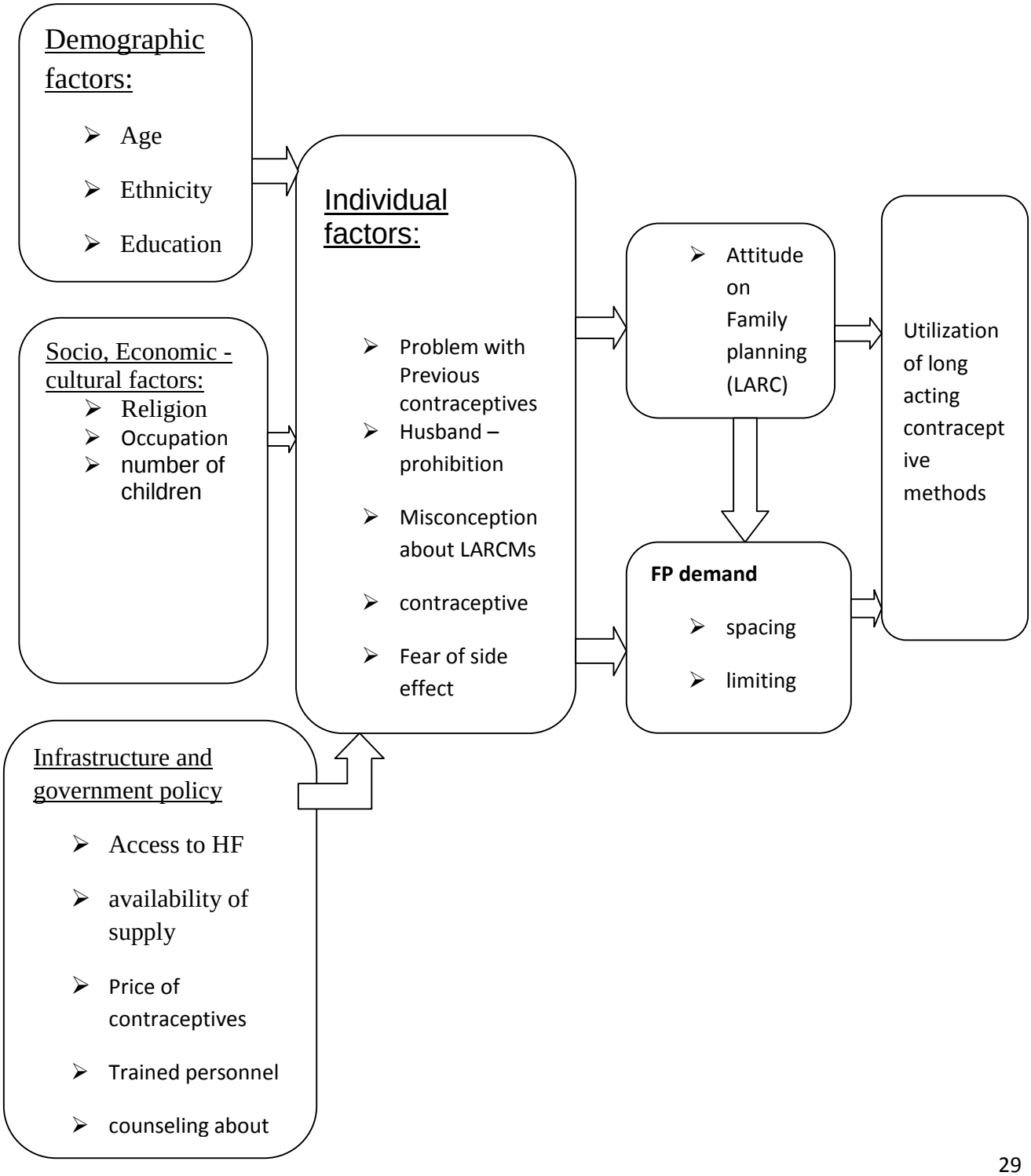
10. Annexes

Annex I. Conceptual frame work



Annex II. Questionnaire English and Amharic version

UNIVERSITY OF GONDAR COLLEGE OF MEDICINE AND HEALTH SCIENCE, INSTITUTE OF PUBLIC HEALTH QUESTIONNAIRE ON LONG ACTING REVERSIBLE CONTRACEPTIVE METHODS UTILIZATION

Dear Participant;

My name is _____: I am working with Tigabu Negsah , a student of master of public health in University of Gondar . I am here to study long acting family planning in the Dessie town. The purpose of this study is to generate information necessary for strengthening family planning program and to make possible amendments for programmers and police makers. Therefore your participation and genuine response is important for the achievement the study objective. Here; I have some questions to be responded by you. Some of the questions are personal that needs privacy. Your answers are completely confidential. Your name will not be written on this form and will never be used in connection with any of the information you give. Your participation by answering the questions that I am going to provide you is strictly on voluntary basis. Your honest answers are important for my understanding of long acting family planning method. The Interview will take about 15 to 20 minutes.

Do you wish to participate in this study?

Yes, I want to participant ☐

No, I don't want to participate ☐

Name of interviewer----------signature----------

Name of respondent----------signature----------

Questionnaire

Kebele ---------- Interviewer No.---------- Interviewee No.---------	
Woreda/Town----------	
Date of interview----------	

PART. I. Socio -Demographic Conditions

Code	Questions	Possible responses	Skip to
101	Respondent age	1. ------ years	
102	Current occupation	1. House wife 2. Merchant 3. Daily laborer 4. Government employee 2. Private org. employee 6. Student 99. Others(specify) ---------	
103	What is your ethnicity?	1 . Oromo 2. Amhara 3. Tigrie 99. Others(specify) ---------	
104	Religion	1. Muslim 2. Protestant 3. Orthodox 99. Others(specify) ------	
105	Educational status of the women	1. illiterate 2. Able to read and write 3. Elementary school 4. secondary school 5. grade 12 complete 6. College and above	

106	Educational status of the husband	1. illiterate 2. Able to read and write 3. Elementary school 4. secondary school 5. grade 12 complete 6. College and above	

PART. II. Reproductive History

Code	Questions	Possible responses	Skip to ques.
201	What was your age at first marriage?	1. --------- years. 88. I don't remember	
202	Have you ever given birth to a child?	1. Yes 2. No	
203	How old were you ,when your born first child?	1. --------- years 88. I don't remember	
204	What is the number of your children alive now?	Enter NO--------- 1. Male--------- 2. Female-----	
205	How many children would you like to have in your life?	Enter NO---------- male--------- Female---------- 2. Not yet decided 44. As God gave me	

PART .III. Family planning information

Code	Questions	Possible responses	Skip to
301	Do you have Television in your home	1. YES 2. NO	
302	What type/s of modern contraceptive methods do you know ?(more than one response is possible)	1. Pills 2. Injectables 3. Norplant 4. IUD 5.Female sterilization 6. Condom 99.Others(specify) -------	
303	From whom do you get information on family planning for the first time?	1. From neighbors 2. From Health workers 3. Form CBRHAs 4. From health extension 5. From my husband 99. Others(specify) -----	
304	What sources of family planning do you know?	1. CBRHAs 2. Government HFs 3. Private hospital 4. Pharmacy 5.NGO Health facility 99. Others(specify) -------	
305	Which methods have you ever used? (tick all mentioned)	1. Pills 2. Inject able 3. Norplant 4. IUD 5.Female sterilization 6. condom 99. Others(specify) -------	

306	Which method are you using now?	1. Pills 2. Inject able 3. Norplant 4. IUD 99. Others(specify) ----------	
307	From where did you received the method of contraceptive that you are in use	1. Government 2. Private hospital, clinic 3. Non Government Org. 4. pharmacy 99. others (specify)----------	
308	For how long have you used contraception?	1. Less than one year 2. 1-3 years 3. More than 3 years 99. Others(specify) -------	
309	Are you satisfied with the modern contraceptive methods available in the source of your family planning service?	1. Yes 2. No	If yes, skip 312
310	If 308 is No, what is the reason? The methods available ----	1. methods not my first choice 2. are less effective 3. prevent pregnancy for shorter time 4. have severe side effects 99. Others(specify) --	
311	In addition to methods available in your source of family planning, what more methods need to be available?	1. Pills 2. Inject able 3. Norplant 4. IUD 99 .Others(specify) ---	

312	Are you using your first method of choice?	1. Yes 2. No	If yes, skip to 315
313	If 312 is No, what is the reason?	1.Absence of my first choice 2. Husband disapproval 3. Provider disapproval 4. Too much costly 99. Others(specify) -----	
314	If the answer to Q.312is due to the absence of first method of choice, what was your first method of choice?	1. Pills 2. Inject able 3. Norplant 4. IUD 5. Female sterilization 6. Condom 99. Others(specify) ----	
315	Have you ever shifted from one contraceptive method to another?	1.Yes 2. No	If no, skip to 318
316	If yes, Why did you shift from one method to another?	1. For convenience of method 2. lack of access to the previous method 3 Due to side effect 4. Need for long term method 6. Provider advised me 7. Partner influenced me 99. Others(specify) ----	

317	If answer to 315 is No 3, Have you ever been told by the provider that your first method of choice is not available and forced to shift to another method?	1. Yes 2. No	If No, skip to 319
318	If 317 is yes, to which methods are you forced to shift?	1. Pills 2. Inject able 3. Norplant 4. IUD 5. Condom 99. Others(specify) ----	
319	Have you ever told by the provider that your method of choice is not available and you were sent to get it from other institution?	1. Yes 2. No	If No skip to 23
320	Where did the provider send you to get the contraceptive?	1. Gov't Health facility 2. Private Health facility 3. NGO Health facility 99. Others(specify) ----	
321	How much time spend to reach the place where you get contraceptive?	1. 30 minutes 2. 30 -60 minutes 3. more than 60 minutes	
322	What do you comment on the money you are paying for contraception compared to the service you getting?	1. it is low cost 2. it is appropriate 3. it is costly 4. it is very costly	

323	Who chooses the method you are using for you?	1. By my self 2. The provider 3. My husband 4. My neighbors 99. Others(specify) --	
324	Do you discuss about family planning with your husband?	1. Yes 2. No.	
325	Did your provider force you to choose a method during first visit ?	1. Yes 2. No	If No skip to 327
326	If 324 is yes, which method do your provider forced you to choose?	1. Pills 2. Inject able 3. Norplant 4. IUD 7. Condom 99. Others(specify) --	
327	For what reason are you using family planning methods?	1. For spacing 2. For limiting 99. Others(specify)----	

328	If you chose the method by yourself, why you prefer the method you are using?	1. I am familiar with the method 2. My friends are using it 3. I don't have another option 4. Convenient to use 5. It is delivered at home 6. Came from family, or Neighbors 7. it is used for longer time 99. Others(specify) ----------	

PART Four Attitude, Awareness, Religion and cultural conditions

401	Contraceptive use may cause infertility in a women	1. Agree 2. disagree 3 .neutral 99.others (specify-	
402	A women to use contraceptives men only decides	1. agree 2. disagree 3. neutral 99.others	
403	No matter if you have too many children	1. agree 2. disagree 3. neutral 99.others	
404	Implants are removed from the place of insertion	1. agree 2. disagree 3. neutral 99.others	
405	Are there family planning methods which are considered as religious taboo in your area?	1. Yes 2. No	If No ,skip to 407

406	If yes, What are/is the method/s which is considered as religious taboo?	1. Pills 2. Inject able 3. Norplant 4. IUD 5. Condom 99. Others(specify)	
407	Are there family planning methods which are considered as cultural taboo?	1. Yes 2. No	
408	If yes, What are/is the method/s which is considered as religious taboo?	1. Pills 2.injectable 3.Implants 4. IUD 5. Condom 99. Others(specify) -------	

የአማርኛ መጠይቅ

በጐንደር ዩኒቨርስቲ፣በህክምና ጤና ሳይንስ ተቋም፣የህብረተሰብ ጤና አጠባበቅ ትምህርት ቤት በቤተሰብ ዕቅድ ዙሪያ በትዳር ውስጥ ያሉ ሴቶች ላይ ጥናት ለማካሄድ የተዘጋጀ መጠይቅ

ሀ/ <u>መግቢያ</u>

ስሜ ---------- እባላለሁ፡፡በጐንደር ዩኒቨርስቲ፣በህክምና ጤና ሳይንስ ተቋም፣የህብረተሰብ ጤና አጠባበቅ ትምህርት ቤት የማስተርስ ተማሪ ከሆኑት ከአቶ ጥጋቡ ነጋሽ ጋር ነው የምሰራው፡፡ የመጣሁበት ዋና አላማ በትዳር ውስጥ ያሉ ሴቶች በቤተሰብ ዕቅድ ላይ ያላቸው ሁኔታ በተመለከተ ለማወቅ የተዘጋጀ መረጃ ለመሰብሰብ ነው፡፡ ከሃያ እስከ ሰላሳ ደቂቃ ያህል አብረን እንቆያለን፡፡

ለ/ የጥናቱ ዋና አላማ

ትዳር ውስጥ ያሉ ሴቶች በቤተሰብ ዕቅድ ላይ ያላቸውን ሁኔበ በተመለከተ ለማወቅና ከዚህ ጋር ተያያዥነት ያላቸውን ዋና ዋና ጉዳዮችን በመሰብሰብ የቤተሰብ ምጣኔ አገልግሎቱንና ፕሮግራሙን ይበልጥ ለማሻሻል ነው፡፡ የሚሰጡት መልስና የጥናቱ ውጤት በሚስጢራዊነት ይጠበቃል፡፡ በዚህ ጥናት የሚሰበሰበው እርስዎን የሚመለከት መረጃ ከዋናው ተመራማሪ በስተቀር ለማንም አይገለፅም፡፡ ስምዎትን በጥናት ወረቀቱ ላይ መፃፍ አያስፈልግም፡፡ በጥናቱ ያለመሳተፍ መብትዎ የተጠበቀ ነው፡፡ ነገር ግን ጥናቱ ግቡን እንዲመታና ለእርስዎና ለመጭው ትውልድ ጠቀሜታ ስለሚኖረው በጥናቱ እንዲሳተፉ በትህትና እጠይቃለሁ፡፡ ለዚህ ጥናት የተመረጡት በእጣ ነው፡፡ ስለዚህ ለቀረቡት ጥያቄዎች መልስ ለመስጠትና ከእኛ ጋር ለተወሰኑ ደቂቃዎች አብሮ ለመቆየት ፈቃደኛ ነዎት?

1. አዎ 2. አይደለሁም

አዎ ካሉ በሚቀጥለው ገፅ ላሉት ጥያቄዎች መረጃ እንዲሠጡኝ በትህትና እጠይቃለሁ፡፡

አመሰግናለሁ

ወረዳ/ከተማ--------ቀበሌ---------የጠያቂው ኮድ-------የተጠያቂው ኮድ-----ቃለመጠይቅ የተደረገበት ቀን-------

ክፍል አንድ፤ማህበራዊና ኢኮኖሚያዊ ሁኔታ መጠይቆች

መለያ ቁጥር	ጥያቄች	ለጥያቄው መልስ ሊሆን የሚችለው	ወደቀጣይ እለፍ
101	የተሳታፊ ዕድሜ?	------ ዓመት	
102	ሥራ?	1. የቤት እመቤት 2. ነጋዴ 3. የቀን ሠራተኛ 4. የመንግስት ተቀጣሪ 5. መንግስዊ ያልሆነ ድርጅት ተቀጣሪ 6. ተማሪ 99. ሌሎች(አብራሪ) -----	
103	ብሔር ምንድን ነው	1. አማራ 2. ኦሮሞ 3. ትግሬ 99. ሌሎች(አብራሪ) ------	
104	ሃይማኖት ምንድን ነው	1. ኦርቶዶክስ 2. ፕሮቴስንት 3. ሙስሊም 99 ሌሎች(አብራሪ) -------	
105	የትምህርት ደረጃ	1. ያልተማረች 2. መጻፍናማንበብ የምትችል 3. አንደኛ ደረጃ ያጠናቀቀ 4. 2ኛ ደረጃ ያጠናቀቀች 5. ኮሌጅና ከዚያ በላይ	
106	የባል የትምህርት ደረጃ	1. ያልተማረ 2. መጻፍናማንበብ የምትችል 3. አንደኛ ደረጃ ያጠናቀቀ 4. 2ኛ ደረጃ ያጠናቀቀች 5. ኮሌጅና ከዚያ በላይ	

ክፍል ሁለት፡- የስነ- ተዋልዶ ታሪክ ሁኔታ በተመለከተ

መለያቁጥር	ጥያቄች	ለጥያቄው መልስ ሊሆን የሚችለው	ወደቀጣይ እለፍ
201	መጀመሪያ ባል ሲያገቡ ድሜዎት ስንት ነበር ?	1. --------- ዓመት. 88. አላስ ውስም	
202	ልጅ ወልደሽ ውቂያለሺ	1. አ ወልጀ አውቃለሁ 2. አይ ወልጀ አላቅም	
203	የመጀመሪያ ልጅሽን ስትወልጂ ዕድሜሽ ስንት ነበሬ	1. --------- ዓመት 88. አላስ ውስም	

204	በህይወት የሚኖሩ ስንት ልጆች አሉት፡	1. ቁጥረቀቸው ይገለጽ---------- 1. ወንድ---------- 2. ሴት---------	
205	በህይወት ዘመንሽ ስንት ያክል ልጆች ንዲኖሩሽ ትፈልገአለሽ	1. ቁጥራቸው የገለጽ----- ወንድ--------- ሴት----------- 2. አልወሰንኩም 44. እግዚአብሄር/አላህ የሰጠኝን ያክል	

ክፍል ሶስት፤ ስለቤተሰብ ምጣኔ በተመለከተ

መለያቁጥር	ጥያቄች	ለጥያቄው መልስ ሊሆን የሚችለው	ወደቀጣይ እለፍ
301	በቤትዎ ውስጥ ቴሌቪዝን አለ	1. አዎ አለ 2. የለም	
302	ስንት ዓይነት ዘመናዊ የወሊድ መከላከያ ያውቃሉ (የተጠቀሰውን በሙሉ አክብብ)	1. እንክብል 2. መርፌ 3. ክንድ ላይ የሚከበር 4. ማህጸን ውስጥ የሚደረግ 5. ኮንዶም 99. ሌሎች(አብራሪ) --	
303	ለመጀመሪያ ጊዜ ስለ ቤተሰብ ምጣኔ መረጃ ከየት አገኘሽ	1. ከጎረቤት/ከጓደኛ /ከዘመድ 2. ከጤና ባለሙያ 3. ከጤናኤክስቴንሽን ሰራተኛ 4. ከባለቤቴ 99. ሌላ(አብራሪ) -------	
304	የወሊድ መከላከያ ዘዴ የት ነው የሚያገኘው	1. ከመንግስት ጤና ተቋም 2. ከግል ሆስፒታል፤ክሊኒክ 3. ከመድሃኒት ቤት 4. መንግስታዊ ካልሆነ ጤና ተቋም 99. ሌላ ካለ(ያብራሩ) -------	
305	ከአሁን በፊት የትኛውን ወሊድ መከላከያ ዘዴ ተጠቅመሽ ታውቂያለሽ? (የተጠቀሰውን በሙሉ አክብብ)	1. እንክብል 2. መርፌ 3. ክንድ ላይ የሚከበር 4. ማህጸን ውስጥ የሚደረግ 5. ኮንዶም 99. ሌሎች(አብራሪ) -------	

306	የትኛውን የወሊድ መከላከያ ዘዴ ነው አሁን በመጠቀም ላይ ያለሽው?	1. እንክብል 2. መርፌ 3. ክንድ ላይ የሚቀበር 4. ማህጸንውስጥ የሚደረግ 5. ኮንዶም 99. ሌሎች(አብራሪ) -------	
307	የሚጠቀሙት የወሊድ መከላከያ ዘዴ ምንጩ ከየት ነው?	1. ከመንግስትየጤና ተቋም 2. ከግልሆስፒታል/ክሊኒክ 3. መድሀኒት ቤት 4. መንግስታዊያልሆነ የጤና ተቋም 99. ሌላ(አብራሪ)-------	
308	ለስንት ጊዜ የወሊድ መከላከያ ተጠቀምሽ?	1. ከአንድ ዓመት ያነሰ ግዜ 2. 1-3 ዓመት 3. ከ 3 ዓመት በላይ 99. ሌሎ‹(›ብራሪ) -------	
309	አገልግሎቱን በምትጠቀሚበት ተቋም ባለው የወሊድ መከላከያ አቅርቦት ረክተሻል?	1. አዎ 2. አረካምሁም	አዎ ከሆነ ወደቁጥር 312 እለፊ
310	ለ309 መልስ አረካም ከሆነ, ምንድን ነው ምክኒያቱ? ዘዴው	1. የመጀመሪያምረጫየ አይደለም 2. የመከላከል በቃቱ ዝቅተኛ ነው 3. የአጭር ጊዜ የእርግዝና መከላኬያ ነው 4. የተጓዳኝ ችግሮች አሉት 99. ሌላ(አብራሪ) -----	
311	ከምትጠቀሚበት አገልግሎት በተጨማሪ ምን ተጨማሪ አገልግሎት ቢኖር ትፈልጊለሽ?	1. እንክብል 2. መርፌ 3. ክንድ ላይ የሚቀበር 4. ማህጸን ውስጥ የሚደረግ 5. ኮንዶም 99. ሌላ(አብራሪ)-------	
312	የመጀመሪያ ምርጫሽን ነው እየተጠቀምሽ ያለሽው	1. አዎ 2. አይደለም	አዎ ከሆነ ወደቁጥር 315 እለፊ
313	ለ312 ጥያቄ አይደለም ምክኒያቱ ምንድነው	1.የመጀመሪያ ምርጫ ባለመኖሩ 2.የባል ተቃውሞ 3.የባለሙያ ድጋፍ ማጣት 4.ዋጋው ውድ በመሆኑ 99. ሌላ ካለ ይብራራ	

314	ለ312 ጥያቄ አይደለም የሆነው የመጀመሪያ ምርጫሽ በመታጣቱ ከሆን የመጀመሪያ ምርጫሽ ምንድን ነው?	1. እንክብል 2. መርፌ 3. ክንድላይ የሚቀበር 4. ማህጸን ውስጥ የሚቀመጥ 5. ኮንዶም 99. ሌላ (አብራሪ) ----------	
315	የወሊድ መከላከያ ዘዴ ከአንድ ወደሌላ ቀይረሽ ታውቂያለሽ?	1. አዎ 2. አላውቅም	አላውቅም ከሆነ, ወደ 317 እለፊ
316	አዎ ከሆነ,ለምን ከአንዱ ወደሌላ ቀየርሽ?	1. የመጀመሪያው ስላልተስማማኝ 2. አዲሱ ተስማሚ ስለሆነ 3. የመጀመሪያውን አቅርቦት ስለሌለ 4. በተጓዳኝ ጉዳት በመፍራት ምክንያት 5. የረጅም ጊዜ መከላከያ ስለፈለኩ 6. ባለሙያ አማራጮችን ስላሳየኝ 99. ሌላ (አብራሪ) -------	
317	የመጀመሪያው ምርጫሽ ባለመኖረ አገልግሎት ሰጭው ወደሌላ መከላከያ ዘዴ እንድትቀይሪ አስገድዶሽ ያውቃሉ?	1. አዎ 2. አላስገደዱኝም	አላስገደዱኝ ም ከሆን ወደ 319 እለፊ
318	ለ317 ጥያቄ አዎ ከሆነ ወደይትኛው መከላከያ ዘዴ ለመቀየር ተገደድሽ?	1. እንክብል 2. መርፌ 3. ክንድ ላይየሚቀበር 4. ማህጸንውስጥ የሚቀመጥ 5. ኮንዶም 99. ሎላ ካለ(አብራሪ)--------	
319	አገልግሎት ሰጪዎች የመጀመሪያ ምርጫሽ ሳይኖር ሲቀር ሌላ ተቋም ሄደሽ እንድትወስጂ አድርገውሽ ያውቃሉ?	1. አዎ 2. አያውቁም	አያውቁም ከሆነ ወደ ጥያቄ ቁጥር 323 እለፊ
320	አገልግሎትሰጭዎችየወሊድመከላከያአገልግሎት እንድታገኝ ወዴየት ላኩሽ?	1. ከመንግስት ጤና ጣቢያ 2. የግል ድርጂት 3. መንግስታዊ ያልሆነ የጤና ተቋም 99. ሌሎች(አብራሪ)---------	

321	የወሊድ መከላከያ ለመጠቀም ስትሄጅ ምን ያህል ጊዜ ይወስድብሻል?	1. 30 ደቂቃ 2. 30 -60 ደቂቃ 3. 60 ደቂቃ በላይ	
322	የአገልግሎቱን ክፍያ ከአገልግሎቱ አንጻር ሲታይ?	1. ዝቅተኛ ዋጋ ነው 2. ተመጣጣን ክፍያ ነው 3. ውድ ክፍያ ነው 4. በጣም ውድ ክፍያ ነው	
323	የምትጠቀሚበትን የወሊድ መከላከያ ዘዴ ማን መረጠልሽ?	1. በራሴ ምርጫ 2. አገልግሎትሰጭው ባለሙያ 3. ባለቤቴ 4. ጎረቤቶቸ 5. ቤተሰቦቸ 99. ሌሎች(አብራሪ) -------	
324	ከባልተቤትሽ ጋር ስለ ቤተሰብ ምጣኔ ተወያይታቹህ ታውቃላቹ?	1. አዎ 2. አናውቅም	
325	መጀመሪያ የወሊድ መከላከያ ዘዴ ለመጠቀም ስትመጭ ባለሙያው በምርጫሽ ላይ አስገድዶሽ ያውቃል?	1. አዎ 2. አያውቅም	አያውቅም ከሆነ ወደ 327 እለፊ
326	ለጥያቄ ቁጥር 324 አዎ ከሆነ, የትኛውን ዘዴ አንድትጠቀሚ አስገደደሽ?	1. እንክብል 2. መርፌ 3. በክንድ የሚቀበር 4. ማህጸን ውስጥ የሚቀመጥ 5. ኮንዶም 99. ሌሎች(አብራሪ) --------	
327	የወሊድ መከላከያ የሚጠቀሙት ለምድነው?	1. አራርቆ ለመውለድ 2. ልጅ ለመውለድ ለማቆም 99. ሌላ ካለ ያብራሩ	
328	የመረጥሽው በራስሽ ከሆነ በምን ምክንያት መረጥሽው?	1. ዘዴውን ስለማውቀው 2. ጓደኞችስለሚጠቀሙበት 3. አማራጭ ስለሌለ 4. አጠቃቀሙ ምቹ ስለሆነ 5. ቤት መጠቀም ስለምችል 6. ከቤተሰብከጓደኛ/ከጎረቤት ስለማገኝ 7. ብዙሳልቆይ መውለድ ስለምፈልግ 8. ለረጅም ጊዜ ስለሚያገለግል 99. ሌሎች(አብራሪ) ---------	

ክፍል አራት፤- የአመለካከት፤ግንዛቤ፤ሃይማኖትና ባህል በተመለከተ

መለያቁጥር	ጥያቄች	ለጥያቄው መልስ ሊሆን የሚችለው	ወደቀጣይእለፍ
401	የወሊድ መከላከያ በሴቶች ላይ መካንነትን ሊያመጣ ይችላል	1. እስማማለሁ 2. አልስማማም 3.ከሁለቱም አይደለሁም 99. ሌላ (አብራሪ)-----	
402	ሴት የወሊድ መከላከያ ለመጠቀም መወሰን ያለበት ወንድ ብቻ ነው	1. እስማማለሁ 2. አልስማማም 99. ሌሎች(አብራሪ) -	
403	ልጅ እንደተፈለገ ቢወለድ ችግር የለውም	1. እስማማለሁ 2. አልስማማም 99. ሌሎች(አብራሪ)-	
404	በክንድ የሚቀበረው የወሊድ መከላከያ ከቦታው ተነሽራቶ የጤና ችግር ያመጣል	1. እስማማለሁ 2. አልስማማም 99. ሌሎች(አብራሪ)-	
405	የቤተሰብ ምጣኔ ዘዴዎች በአካባቢያቹህ በሃይማኖት የተከለከለ ነውን	1. አዎ 2. አይከለከልም	አይከለከል ምከሆነ ወደ407 እለፉ
406	አዎ ከሆነ, የትኞቹ ናቸው በሃይማኖት የሚከለከሉት	1. እንክብል 2. መርፌ 3. በክንድ የሚቀበር 4. በማህጸን የሚቀመጥ 5. ኮንዶም 99. ሌሎች(አብራሪ) -	
407	የቤተሰብ ምጣኔ ዘዴዎች በአካባቢያቹህ በባህል የተከለከለ ነውን	1. አዎ 2. አይከለከሉም	
408	አዎ ከሆነ, የትኞቹ ናቸው በባህል የተከለከሉት	1. እንክብል 2. መርፌ 3. በክንድ የሚቀበር 4. በማህጸን የሚቀመጥ 5. ኮንዶም 99. ሌሎች(አብራሪ) -	

ለተሳትፏችሁ አመሰግናለሁ።።

Annex III. Information Sheet and consent statement

You are just invited to participate in a research study to be conducted by MPH student at University of Gondar. Please read the following statements and ask any thing you are unclear for it.

Name of Principal Investigator: Tigabu Negash

Name of the sponsor: University of Gondar

1. **Title of the research project**: Determinants of long acting reversible contraceptive method use among married women in Dessie, North East Ethiopia.

2. Purpose of the research project: To assess determinants of long acting reversible contraceptive method use among married women in Dessie Town

3. Procedure

3.1. Our interview will take about 20 minutes. However you can interrupt the interview at any time you want without any penalty for you.

3.2. Individuals who are traditional method users, and women who are unable to hear ,women who are not live greater than six month and will not participated in this research.

4. Participation benefits: participating in this research project will not have any incentives, but you will get appropriate health service based on our recommendations for the health facility and if you adhere to the health education given during the survey you will be aware of the benefit of LARCMs.

5. Participation risks: By participating in this research project, there is totally no risk that comes to one who gives information for this study. Only you may loss 20 minutes for interview.

6. Confidentiality Your name will not be written on the questionnaire and your answers will be kept confidential.

7. **Person to contact:** This research project will be reviewed and approved by the institutional review board of college of medicine and health science, University of Gondar. If in case you want to know more information about the research and its undertaking, you can

contact the committee through the address of the advisors and/or the principal investigator below.

I. Ato Zelalem Birhanu (BSc, Mphil Rh) University of Gondar, Institute of public

Tel:+251-9120338654 e-mail: zelalem78@gmail.com

II. Ato.Digsu Negese (BSc, MPH) University of Gondar, Institute of public

Tel:+251-918046171 e-mail: digsuneg@gmail.com

III. Tigabu Negash, University of Gondar, Institute of public health: Principal investigator

Tel: +251-910-9999-05 e-mail: tigabunegash@yahoo.com.

Agree to participate: Yes ---------- No----------

Signature _____ Date_____

የመረጃና የስምምነት ቅጽ

በአማራ ብሔራዊ ክልለላዊ መንግስት በደሴ ከተማ አስተዳደር ውስጥ ያገቡ ሴቶች በቤተሰብ ዕቅድ ያላቸው ሁኔታ እና ተያያዥነት ባላቸው ነገሮች ዙሪያ ማጥናት፡፡

የዋና ተማራማሪ ስም፡ ጥጋቡ ነጋሽ

የድርጅቱ ስም፡ ጎንደር ዩኒቨርሲቲ የህብረተሰብ ጤና አጠባበቅ ትምህርት ተቋም

የስፖንሰር ድርጅት ስም ፡ ጎንደር ዩኒቨርሲቲ

መግቢያ

ይህ የመረጃና የስምምነት ውል የተዘጋጀው እርስዎ ተሳታፊ እንዲሆኑ ስለተጋበዙበት በምርምር ቡድኑ የሚካሄደው ጥናት በተመለከተ መግለጫ ለመስጠት ነው፡፡ የምርምር ፕሮጀክቱ ዋና ዓላማ የደሴ ከተማ አስተዳደር ያገቡ ሴቶች በቤተሰብ ዕቅድ ዙርያ ያላቸው ሁኔታና ተያያዥነት ባላቸው ነገሮች ዙርያ ማጥናት ነው፡፡ የምርምር ቡድኑ ለዚህ ጥናት የሰለጠኑ መረጃ ሰብሳቢዎችን፤ ሱፐርቫይር እና ከጎንደር ዩኒቨርሲቲ አማካሪዎችን ያካተተ ነው፡፡

የጥናቱ ዓላማ

የዚህ ጥናት በደሴ ከተማ አስተዳደር ውስጥ ባለትዳር ሴቶች በቤተሰብ ዕቅድ ዙርያ የዳሰሳ ጥናት ማካሄድ ነው፡፡ ብሎም ጥናቱ በትዳር ውስጥ ያሉ ሴቶች በቤተሰብ ዕቅድ ዙርያ ያላቸው ሁኔታ ያለበትን ሁኔታ ደረጃ በማጥናት ለፈፃሚ አካላት እና ሌሎች የሚመለከታቸውን አካላት አስፈላጊውን መረጃ ይሰጣል ተብሎ ይጠበቃል፡፡

የተሳትፎ ሁኔ (ሂደት)፡ በትዳር ውስጥ ያሉ ሴቶች በቤተሰብ ዕቅድ ያላቸው ተሳትፎ እና ከዚህ ጋር በተያያዘ ያላቸውን ችግር ለማወቅ ይረዳ ዘንድ በዚህ ጥናት ንዲሳተፉ ተጋብዘንዋል፡፡ በዚህ ጥናት ውስጥ ለመሳተፍ ከተስማሙ ስምምነቱን መረዳትና እንዲሁም በቃልዎ ማረጋገጥ ይገባዎታል፡፡ በዚህ ጥናት ሲሳተፉ መረጃ ሰብሳቢው የሚጠይቅዎትን ጥያቄ እንዲመልሱ ፈቃደኛነትዎን ይጠይቃል፡፡ በህመም ወይም በሌላ ችግር ምክንያት መሳተፍ ካልቻሉ አይገደዱም፡፡ በዚህ ጥናት የሚሳተፉ በደሴ ከተማ ያሉ ባለትዳር ሴቶች ሲሆኑ የሚሰጡት መልስም በሚስጥር ይጠበቃል፡፡

1. **ሊከሰቱ የሚችሉ ስጋቶችና የምቾት መጓደሎች፡**

   በዚህ ጥናት መሳተፍዎ ምናልባት ጊዜዎን ሊሻማብዎ ይችል ይሆናል፡፡ ነገር ግን የጥናቱ ውጤት ወደፊት በከተማውና በሀገራችን የቤተሰብ ዕቅድ እና ከቤተሰብ ዕቅድ መሻሻል ከሚሰጠው ጥቅም አንጻር ይህን ያህል አይደለም፡፡

2. **ጥቅሞች**

በዚህ ጥናት በመሳተፍዎ የተለየ ጥቅም አያገኙም። ነገር ግን የእርስዎ በጥናቱ ላይ መሳተፍ ባለትዳር ሴቶች በቤተሰብ ዕቅድ ያላቸው ተሳትፎ ለማሳደግ የሚደረገው ጥረት ለማሻሻል ከፍተኛ ሚና ይጫወታል።

3. ማካካሻ

በዚህ ጥናት በመሳተፍዎ ምንም ዓይነት ማካካሻ አይሰጥዎትም። ነገር ግን በጥናቱ በመሳተፍዎ ምስጋናችን ከፍ ያለ ነው።

4. ምስጢር ስለመጠበቅ

የሚሰጡን መልስ እንዲሁም የጥናቱ ውጤት በሚስጥርነት ይጠበቃል። ለዚህ ጥናት የሚሰበሰበው እርስዎን የሚመለከት መረጃ በማህደር የሚቀመጥ ሲሆን ማህደሩም በእርስዎ ስም ሳይሆን በተለያ ኮድ ሲቀመጥ ከዋናው ተመራማሪ በስተቀር ለማንም አይገለፅም።

5. በጥናቱ ያለመሳተፍ መብት፡

በጥናቱ ላለመሳተፍ ከፈለጉ በዚህ ጥናት ያለመሳተፍ፣ ከአንድ በላይ እንዲሁም ሁሉንም ጥያቄዎች አለመመለስ ይችላሉ። በዚህ ጥናት ባለመሳተፍዎ ወይም በከፊል ሆነ በሙሉ ጥያቄዎችን ባለመመለስዎ በት/ቤቱ የሚያጡት አገልግሎት አይኖርም።

መረጃ ስለማግኘት

ይህ ጥናት በጎንደር ዩኒቨርሲቲ የስነ ምግባር ኮሚቴና የህብረተሰብ ጤና አጠባበቅ ትምህርት ተቋም ተከልሶ የሚፀድቅ ይሆናል። ማንኛውም ጥያቄ ካለዎት ከሚከተሉት ማንኛውም ሰው በሚፈልጉት ጊዜ ማነጋገር ይችላሉ።

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ፊርማ _____ቀን_____

Annex IV. Declaration

I, the undersigned, senior MPH student declare that this thesis is my original work in partial fulfillment of the requirement for the degree of Master of Public Health in Reproductive health

Name: Tigabu Negash

Signature: _____

Place of submission: Institution of public Health, College of Medicine and Health Sciences, University of Gondar.

Date of Submission: _____

This thesis work has been submitted for examination with our approval as university advisor(s).

Advisors name	**Signature**
1. Ato Zelalem Birhanu	----------
2. Ato Digsu Negese	----------